APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,982	08/30/2001	Hiroshi Arakawa	16869P-031600US	1364

20350 7590 06/17/2005	EXAMINER
TOWNSEND AND TOWNSEND AND CREW, LLP	LAZARO, DAVID R

TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>25 March 2005</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1,2,6-8 and 17-25</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1,2,6-8 and 17-25</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a) ☐ All　b) ☐ Some * c) ☐ None of:

　　　1. ☐ Certified copies of the priority documents have been received.

　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   This office action is in response to the amendment filed 03/25/2005.

2.   Claims 1 and 2 were amended.

3.   Claims 3-5 and 9-15 are canceled.

4.   Claims 16-25 were added.

5.   Claims 1, 2, 6-8 and 16-25 are pending in this office action.

Response to Amendment

6.   The objections to claims 1 and 2 are withdrawn.

7.   The objection to claim 3 is moot as claim 3 is canceled.

8..   The rejection of Claim 10 under 35 U.S.C. 101 is moot as claim 10 is canceled.

9.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action.

Claim Rejections - 35 USC § 102

10.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11.   Claim 1, 2, 6-8 and 17-25 are rejected under 35 U.S.C. 102(e) as being

anticipated by U.S. Patent 6,304,980 by Beardsley et al. (Beardsley).

12.   With respect to Claim 1, Beardsley teaches a backup processing method for

backing up data to be used by a data-processing computer system, the method

comprising the steps of: selecting resources in a usable state from a plurality of

resources necessary for backing up data, the data to be used by the data-processing

computer system (Col. 8 line 56 - Col. 9 line 53); selecting switches in a usable state

from a plurality of switches necessary for forming routes among the selected resources

(Col. 11 lines 8-42); determining which of the selected resources and selected routes

are secure; and securing a one group of the selected resources and selected routes as

a first path for backup and another one group of the selected resources and selected

routes as a second paths (Col. 11 lines 34-42, Col. 12 lines 31-63, and Col. 13 lines 54

- Col. 14 line 42); executing backup processing by using the first path and a backup

instruction command set having a plurality of backup commands, each backup

command backing up a different portion of the data, every portion of the data having a

corresponding backup command, the backup processing including executing one or

more of the backup commands (Col. 9 lines 54-62, Col. 11 line 66 - Col. 12 line 7, Col.

17 lines 64 - Col. 18 line 6); detecting if a problem occurs in the first path based on a

result of execution of one of the backup commands in the backup instruction command

set (Col. 15 lines 33-44 and Col. 17 lines 3-39, also see in general Col. 16 line 4 - Col.

19 line 24 for alternative embodiments of problem detection); changing from the first

path to the second path if a problem is detected; and continuing execution of the backup

processing by using the second path and executing backup commands in the backup

instruction command sets that have not yet been executed (Col. 17 line 54 - Col. 18 line

6).

13.   With respect to Claim 2, Beardsley teaches all the limitations of Claim 1 and

further teaches wherein backup processing is executed by using the first or the second

path, and when the backup processing has been fully executed by one or both of the

paths, regarding the backup processing as successful (Col. 17 line 47- Col. 18 line 6).

14.   With respect to Claim 6, Beardsley teaches all the limitations of Claim 6 and

further teaches including a step of storing information relating to the backup processing

of the backed-up data (Col. 9 lines 54-62 and Col. 17 line 20 -Col. 18 line 6).

15.   With respect to Claim 7, Beardsley teaches all the limitations of Claim 2 and

further teaches including a step of storing information relating to whether the backup

processing of the backed-up data was successfully executed (Col. 9 lines 54-62 and

Col. 17 line 20 -Col. 18 line 6).

16.   With respect to Claim 8, Beardsley teaches all the limitations of Claim 7 and

further teaches wherein data stored relating to the successful execution of the backup

processing is used to determine if the data can be restored (Col. 9 lines 54-62 and Col.

17 line 20 -Col. 18 line 6).

17.   With respect to Claim 16, Beardsley teaches all the limitations of Claim 1 and

further teaches terminating execution of the backup processing if the second path is not

secured (Col. 12 lines 52-62 and Col. 17 lines 20-39).

18.   With respect to Claim 17, Beardsley teaches a computer managing a system

which includes a plurality of resources, comprising: a processing unit (Col. 9 lines 14-

54); and a network interface connectable to the plurality of resources via a network (Col.

9 lines 14-54), wherein the processing unit is operable to: select resources in a usable

state from the plurality of resources necessary for backing up data stored in a storage

system (Col. 8 line 56 - Col. 9 line 53); determining which of the selected resources are

secure (Col. 11 lines 34-42, Col. 12 lines 31-63, and Col. 13 lines 54 - Col. 14 line 42);

secure a first group of the selected resources as a first path and a second group of the

selected resources as a second path for backup (Col. 11 lines 34-42, Col. 12 lines 31-

63, and Col. 13 lines 54 - Col. 14 line 42); initiate first backup processing via the first

path by issuing a backup instruction command set via the network interface to the first

group of resources, the backup instruction command set having a plurality of backup

commands, each backup command effective to backup a portion of the data stored in

the storage system, wherein one or more of the backup commands are executed to

backup one or more portions of the data via the first path (Col. 9 lines 54-62, Col. 11

line 66 - Col. 12 line 7, Col. 17 lines 64 - Col. 18 line 6); detect if a problem occurs in the

first path based on a result of execution of one of the backup commands (Col. 15 lines

33-44 and Col. 17 lines 3-39, also see in general Col. 16 line 4 - Col. 19 line 24 for

alternative embodiments of problem detection); initiate a change from the first path to

the second path if the problem is detected (Col. 17 line 54 - Col. 18 line 6); and initiate

second backup processing via the second path by issuing a remaining portion of the

backup instruction command set via the network interface to the second group of

resources, the remaining portion of the backup instruction command set including those backup commands which had not been previously executed (Col. 17 line 54 - Col. 18 line 6).

19.   With respect to Claim 18, Beardsley teaches all the limitations of Claim 17 and further teaches terminating execution of the backup processing if the second path is not secured (Col. 12 lines 52-62 and Col. 17 lines 20-39).

20.   With respect to Claim 19, Beardsley teaches all the limitations of Claim 18 and further teaches wherein backup processing is executed by using the first or the second path, and when the backup processing has been fully executed by one or both of the paths, regarding the backup processing as successful (Col. 17 line 47- Col. 18 line 6).

21.   With respect to Claim 20, Beardsley teaches all the limitations of Claim 19 and further teaches wherein the processing unit stores information relating to whether the backup processing of the backed-up data was successfully executed, wherein the processing unit indicates to execute data restore based on the information (Col. 9 lines 54-62 and Col. 17 line 20 -Col. 18 line 6).

22.   With respect to Claim 21, Beardsley teaches all the limitations of Claim 17 and further teaches a memory (Col. 10 lines 29-54), wherein the data that is backed up is referred to as backed-up data and can be stored in a first storage resource in the first path or in a second storage resource in the second path (Col. 9 lines 14-44), wherein the processing unit stores backup information relating to the backup processing of the backed-up data into the memory, the backup information indicating which portions of the backed-up data are stored in the first storage resource and which portions of the

backed-up data are stored in the second storage resource (Col. 9 lines 54-62 and Col. 17 line 20 -Col. 18 line 6), wherein the processing unit initiates restoring of the backed-up data based on the backup information, including performing steps of: accessing the backup information in connection with a first portion of the backed-up data and determining whether the first portion is stored on the first storage resource or on the second storage resource; accessing either the first storage resource or on the second storage resource to obtain the first portion; and repeating the above steps for additional portions of the backed-up data, thereby k restoring the data from the backed-up data (Col. 10 lines 14-27).

23.   With respect to Claim 22, Beardsley teaches a system comprising: a storage system (Col. 9 lines 14-54); a plurality of library systems (Col. 9 lines 14-54); a plurality of copy devices (Col. 9 lines 14-54); a plurality of switches which are connectable among the storage system, the plurality of library systems and the plurality of copy devices (Col. 11 lines 8-42); and a management computer connectable to the plurality of switches, the storage system, the plurality of library systems and the plurality of copy devices via a network, wherein the management computer is operative to: select library systems in a usable state from the plurality of library systems necessary for backing up data stored in the storage system (Col. 11 lines 34-42, Col. 12 lines 31-63, and Col. 13 lines 54 - Col. 14 line 42); select switches in a usable state from the plurality of switches necessary for forming routes from the storage system to the selected library systems, thereby securing a first group of selected library systems and selected switches as a first routes for backup and securing a second group of selected library

systems and selected switches as a second route (Col. 11 lines 34-42, Col. 12 lines 31-63, and Col. 13 lines 54 - Col. 14 line 42); select a first copy device in a usable state from the plurality of copy devices for the first routes and a second copy device in a usable state from the plurality of copy devices for the second routes; and initiate execution backup processing via the first routes by issuing backup instruction command set including a plurality of backup commands, each backup command indicating to transfer part of the data stored in the storage system to the copy device, when the first and second routes are secured, wherein the first copy device sends portions of data from the storage system to a library system included in the first route in accordance with one or more of the backup commands (Col. 9 lines 54-62, Col. 11 line 66 - Col. 12 line 7, Col. 17 lines 64 - Col. 18 line 6), and notifies the management computer if an error in the first route is detected (Col. 15 lines 33-44 and Col. 17 lines 3-39, also see in general Col. 16 line 4 - Col. 19 line 24 for alternative embodiments of problem detection), wherein the management computer initiates execution backup processing via the second path by issuing a remaining portion of the backup instruction command set to the second copy device if the management computer receives an error notification from the first copy device (Col. 17 line 54 - Col. 18 line 6), wherein the second copy device sends data from the storage system to a library system included in the second route in accordance with the remaining portion of the backup instruction command set (Col. 17 line 54 - Col. 18 line 6).

24.   With respect to Claim 23, Beardsley teaches all the limitations of Claim 22 and further teaches wherein the management computer terminates execution of the backup

processing if the second route is not secured (Col. 12 lines 52-62 and Col. 17 lines 20-39).

25.   With respect to Claim 24, Beardsley teaches all the limitations of Claim 23 and further teaches wherein backup processing is executed by using the first or the second path, and when the backup processing has been fully executed by one or both of the paths, regarding the backup processing as successful (Col. 17 line 47- Col. 18 line 6).

26.   With respect to Claim 25, Beardsley teaches all the limitations of Claim 24 and further teaches wherein the management computer stores information relating to whether the backup processing of the backed-up data was successfully executed, wherein the management computer selects the first route based on the information, indicates the copy device to execute data restore from a library system included in the first route to the storage system via the first route (Col. 9 lines 54-62 and Col. 17 line 20 -Col. 18 line 6).

Response to Arguments

27.   Applicant's arguments with respect to claims 1, 2, 6-8 and 17-25 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

28.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

29.   U.S. Patent 5,652,908 by Douglas et al. "Method and apparatus for establishing

communications sessions in a remote resource control environment" July 29, 1997.

Discloses a control server that stores fallback information for sessions between clients

and servers. When a failure occurs with the session, the fallback information can be

used to reestablish connections through redundant paths.

30.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to David Lazaro whose telephone number is 571-272-

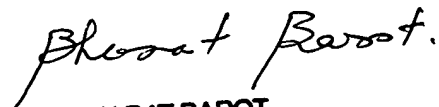3986. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

David Lazaro
June 6, 2005

BHARAT BAROT
PRIMARY EXAMINER